

WHAT IS CLAIMED IS:

1. A transom mounted, air cooled drive system for shallow draft marine watercraft comprising a vertical drive housing having an upper and a lower end and means for closely attaching an air cooled engine perpendicularly to said drive housing, said engine having an output shaft located within said drive housing, a propeller shaft assembly attached to said lower end of said vertical housing opposite said air cooled engine and extending outwardly, a pivotal transom mounting bracket located intermediate said vertical housing, and belt drive means located within said vertical drive housing connecting said air cooled engine and said propeller shaft assembly.
- 10 2. The transom mounted, air-cooled drive system according to claim 1 wherein said drive system further comprising a transmission for reversing drive rotation.
3. The transom mounted, air-cooled drive system according to claim 1 wherein said drive system further comprises steering and throttle controls.
- 15 4. The transom mounted, air cooled drive system according to claim 1 wherein said propeller shaft assembly further comprises a shaft housing having a vertical triangular fin located below said shaft housing, a shaft supported adjacent each end by thrust bearings in a manner whereby said shaft extends beyond each of said thrust bearings and a plurality of internal seals located along said shaft outboard of said thrust bearings.
5. The transom mounted, air-cooled drive system according to claim 1 wherein said belt 20 drive means comprises at least two timing belt type pulleys and a timing belt.

6. A transom mounted, air cooled drive system for shallow draft marine watercraft comprising:

- a) a housing containing a belt drive assembly having an upper drive pulley and a lower driven pulley;
- 5 b) a pivotal means for attaching said belt drive housing to a boat transom;
- c) an air cooled engine attached to said housing and connected to said upper drive pulley; and
- d) a propeller shaft assembly attached to said housing and connected to said lower driven pulley extending outwardly from said housing opposite said air-cooled motor.

10 7. The transom mounted, air-cooled drive system according to claim 6 wherein said belt drive assembly further comprises a belt.

8. The transom mounted, air-cooled drive system according to claim 6 wherein said pivotal means comprises both horizontal and vertical pivoting means.

15 9. The transom mounted, air-cooled drive system according to claim 6 wherein said air cooled drive system further comprises a transmission connected between said air-cooled engine and said upper drive pulley.

10 10. The transom mounted, air cooled drive system according to claim 6 wherein said propeller shaft assembly further comprises a shaft housing, a propeller shaft supported within said shaft housing by a plurality of thrust bearings and sealed at each end of said shaft housing with a plurality of shaft seals.

11. The transom mounted, air-cooled drive system according to claim 6 wherein said propeller shaft assembly is in access of 18 inches in length.

12. The transom mounted, air-cooled drive system according to claim 10 wherein said propeller shaft assembly further comprises a rudder fin extending below said shaft housing.

5 13. A method of driving a small watercraft in very shallow water comprising the steps of:

a) attaching an air cooled drive system comprising a vertical drive housing having an upper and a lower end and means for closely attaching an air cooled engine perpendicularly to said drive housing said engine having an output shaft located within said drive housing, a propeller shaft assembly attached to said lower end of said vertical housing opposite said air cooled engine and extending outwardly, a pivotal transom mounting bracket located intermediate said vertical housing, and belt drive means located within said vertical drive housing connecting said air cooled engine and said propeller shaft assembly; and

10 15 b) adjusting said pivotal transom mounting bracket relative to said transom in a manner whereby said propeller shaft assembly does not extend below the bottom of said watercraft.